TECHNICAL
EDUCATION
ACADEMY

School of Engineering

COURSE PROGRAMME

000516

VEND004 - Repair of Oil-Free Screw Compressors CompAir

The training program "Repair of Oil-Free Screw Compressors CompAir D75-10A and CompAir D250-10" is a specialized course carefully designed for professionals working in the field of compressor maintenance and repair.



Learn from the Best in the Business!

Course overview

Duration: 5 days / 40 hours · Intermediate level

Why take this course

The training program "Repair of Oil-Free Screw Compressors CompAir D75-10A and CompAir D250-10" is a specialized course carefully designed for professionals working in the field of compressor maintenance and repair. The primary target audience of this course includes Level 6 repair technicians, dynamic equipment repair specialists, and senior equipment repair engineers.

The course content is systematically divided into training modules, each dedicated to various aspects of these compressors. The objective is to provide a comprehensive understanding of the operations, troubleshooting, and maintenance processes of the CompAir D75-10A and CompAir D250-10 models.

Starting with an in-depth review of the design and functions of these compressors, participants will gain a clear understanding of the different systems and circuits integral to their operation. Modules covering safety conditions and protocols ensure that all participants are well-versed in the safety regulations associated with these compressor models.

In addition to theoretical training, a significant part of the program is focused on imparting practical skills. Modules on commissioning and operation procedures equip delegates with the knowledge needed to start up and run these compressors. This includes initial and scheduled commissioning steps, along with guidelines for normal operation.

Troubleshooting is an essential part of any maintenance training, and this program is no exception. Detailed modules will help participants understand common errors, their potential causes, and the most effective strategies for resolution. This critical knowledge helps maintain operational efficiency and minimize downtime.

The program also delves into the technical aspects of maintaining and servicing these compressors. Routine maintenance, equipment inspections to ensure safety, and even complex tasks such as disassembly and assembly, adjusting screw clearances, and managing tolerances are part of the curriculum.

Additionally, the training includes instructions on deactivating and dismantling the compressors when necessary. Proper disposal procedures, as well as an understanding of the specifications and use of various lubricants and additives, are also covered in the course content.

Overall, the training course will be conducted offline, in a practical environment, providing delegates with an immersive and engaging learning experience. The goal of this program is not only to educate but also to equip participants with hands-on skills that can be directly applied in their workplace, enhancing their individual competencies and collectively improving the operational efficiency of their organizations.

Course overview — continued

Who it is for and how it helps

This course is primarily designed for technical specialists who are directly involved in the maintenance and repair of oil-free screw compressors, specifically the CompAir D75-10A and CompAir D250-10 models, including:

• Repair Technicians: Repair technicians who have reached Level 6 competency and are looking to deepen their knowledge of these specific compressor models will find this course highly beneficial. It will provide practical knowledge on disassembly, assembly, and defect identification processes, equipping these specialists with advanced skills required for their role.

• Dynamic Equipment Repair Section Specialists: Engineers, technicians, and specialists working in the dynamic equipment repair section, tasked with overseeing, implementing, or participating in the repair of these compressors, should attend this training. It offers a comprehensive overview of the design, operation, troubleshooting, and maintenance of these compressor models.

• Senior Equipment Repair Engineers: This course is also suitable for senior equipment repair engineers who are responsible for supervising teams of technicians and fitters and managing the repair and maintenance work of these compressors. The course content will provide them with the knowledge needed to effectively lead their teams and ensure the accuracy and efficiency of the repair process.

What you will learn

- Understand the design and functions of the oil-free screw compressors CompAir D75-10A and CompAir D250-10, including their specific systems and circuits, such as air and water cooling systems, air circuit, external/internal water circuit, oil circuit, and control mechanisms
- Adhere to safety conditions and protocols related to the operation and maintenance of these compressor models, including the identification and understanding of safety instructions, signs, and equipment
- Prepare compressors for commissioning, including proper procedures for transportation, placement, piping preparation, and connection processes (compressed air, cooling water, and electricity)
- Conduct the commissioning and operation of these compressors, including initial and scheduled commissioning, normal operation, and special commissioning cases
- Troubleshoot common errors, diagnose error sources, and implement effective methods to resolve them
- Perform comprehensive technical maintenance and repair, including scheduled maintenance, inspection of protective and safety equipment, and execution of more specialized tasks
- Carry out advanced maintenance tasks such as disassembly, assembly, defect identification of the compressor stage and gearbox, adjusting screw clearances and torque settings, as well as managing tolerances

Curriculum

Modules 01–07

01 Introduction and Overview

- Introduction to CompAir D75-10A and CompAir D250-10 Compressors
- Intended Use
- Service and Nameplate Information
- Safety Conditions: Overview

02 Transportation, Placement, and Preparation for Commissioning

- Transportation, Placement, and Preparation for Commissioning

03 Design and Functions

- Compressor Design and Working Principle
- System Diagram: Air-Cooled Compressor
- System Diagram: Water-Cooled Compressor
- Control Mechanisms: Automatic Operation

04 Commissioning and Operation

- Commissioning and Operation

05 Final Procedures

- Compressor Shutdown
- Scheduled Oil Replacement in the Screw Compressor
- Compressor Removal and Disposal
- Limit Values for Dissolved Substances and Technical Specifications

06 Troubleshooting

- Troubleshooting

07 Maintenance and Service

- Maintenance and Service

Curriculum

Modules 08

08 Advanced Servicing

- Advanced Servicing
- Tolerance Management: Runout and Bearings

Programme instructor



Игорь Милецкий

За время своей карьеры я возглавлял ремонт и обслуживание тяжелого специального оборудования, насчитывающего более 500 единиц, включая такие известные марки, как Liebherr, CAT, JCB, Kubota, Bobcat, Freightliner, International, Hino, Hyster, Wausau, Atlas Copco, КАМАЗ и МАЗ. Мои обязанности охватывали широкий спектр задач: от обслуживания подъемного оборудования, кранов, подъемных и автомобильных подъемников до ножничных подъемников. Я профессионально занимался ремонтом и обслуживанием всех узлов, диагностикой неисправностей, а также поиском и заказом необходимых запчастей.

Как механический инженер, я отвечал за обслуживание вращающегося оборудования, такого как воздушные и газовые компрессоры, воздуходувки, дизельные и газовые генераторы, сушилки брендов GE, Atlas Copco, Liutech, Fu sheng и Wilson. Мои обязанности включали подбор, заказ и списание запчастей, проведение пуско-наладочных работ и взаимодействие с поставщиками.

Мой опыт также охватывает ремонт и обслуживание специальной техники JLG и Manitou. Я предоставлял сервисное, гарантийное и постгарантийное обслуживание вилочных погрузчиков, ножничных подъемников JLG и специальной техники Manitou. В мои задачи входил ремонт двигателей внутреннего сгорания, коробок передач, шасси и плановое техническое обслуживание.

В роли сервисного инженера я занимался ремонтом и обслуживанием компрессоров, вводом в эксплуатацию нового оборудования, обучением операторов и механиков клиентов правильной эксплуатации оборудования. Мои обязанности включали гарантийный, послегарантийный и планово-предупредительный ремонт, составление отчетов, актов и рекомендаций по выполненным работам, а также подготовку спецификаций и счетов на поставку запчастей.

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Participant ratings

Programme evaluation based on participant feedback

Overall programme rating — 4.5 / 5

Clarity of learning objectives	**4.2 / 5**
Confidence in applying knowledge and skills	**4.0 / 5**
Achievement of learning objectives	**3.7 / 5**
Relevance of content to job tasks	**3.7 / 5**
Suitability of difficulty for the level of preparation	**4.1 / 5**
Increase in knowledge	**3.9 / 5**
Skills development	**3.8 / 5**
Willingness to recommend the programme to colleagues	**4.1 / 5**

12 responses

Joining the programme

Contact the Academy and quote course code 000516 to confirm dates, delivery format, prices and enrolment terms.

Training for your team

Tell us your business goals, the roles and number of participants, and your preferred dates and location. This will help us discuss the right training option.

Preparing for the programme

The published programme does not specify any prerequisites. Contact us before enrolling to confirm how to prepare.

Discuss your training needs

mail@tecedu.org
www.tecedu.academy

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